



# SMT Power Inductors – DO3316P Series



The DO3316 Series of surface mount inductors is designed for highest performance at a very economical price. Their high energy storage and very low resistance make them the ideal inductors for DC-DC conversion in notebook computers, PDAs, step-up or step-down converters, flash memory programmers, etc.

They are available in 19 inductance values, most at 10% tolerance. In addition to the standard versions shown here, custom inductors are available to meet your exact requirements.

Coilcraft **Designer's Kit C378** contains three samples each of the 20% tolerance parts. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

## SPICE models ON OUR WEB SITE OR CD

Part number <sup>1</sup>	L <sup>2</sup> ( $\mu$ H)	Percent tol <sup>3</sup>	DCR max (Ohms)	SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)
DO3316P-102ML_	1.0	<b>20</b>	0.009	100	9.0	6.8
DO3316P-152ML_	1.5	<b>20</b>	0.010	90	8.0	6.4
DO3316P-222ML_	2.2	<b>20</b>	0.012	80	7.0	6.1
DO3316P-332ML_	3.3	<b>20</b>	0.015	65	6.4	5.4
DO3316P-472ML_	4.7	<b>20</b>	0.018	45	5.4	4.8
DO3316P-682_L_	6.8	<b>20,10</b>	0.027	38	4.6	4.4
DO3316P-103_L_	10	<b>20,10</b>	0.038	30	3.8	3.9
DO3316P-153_L_	15	<b>20,10</b>	0.046	27	3.0	3.1
DO3316P-223_L_	22	<b>20,10</b>	0.085	19	2.3	2.7
DO3316P-333_L_	33	<b>20,10</b>	0.10	15	2.0	2.1
DO3316P-473_L_	47	<b>20,10</b>	0.14	12	1.6	1.8
DO3316P-683_L_	68	<b>20,10</b>	0.20	10	1.4	1.5
DO3316P-104_L_	100	<b>20,10</b>	0.28	9	1.2	1.3
DO3316P-154_L_	150	<b>20,10</b>	0.40	6	1.0	1.0
DO3316P-224_L_	220	<b>20,10</b>	0.61	5	0.8	0.8
DO3316P-334_L_	330	<b>20,10</b>	1.02	4.5	0.6	0.6
DO3316P-474_L_	470	<b>20,10</b>	1.27	3.5	0.5	0.5
DO3316P-684_L_	680	<b>20,10</b>	2.02	2.5	0.4	0.4
DO3316P-105_L_	1000	<b>20,10</b>	3.00	2.0	0.3	0.3

1. When ordering, specify **tolerance**, **termination** and **packaging** codes:

DO3316P-105 **M** **L** **D**

**Tolerance:** **M** = 20%, **K** = 10% (Table shows stock tolerances in bold.)

**Termination:** **L** = RoHS compliant gold over nickel over phos bronze.  
Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or  
**S** = non-RoHS tin-lead (63/37).

**Packaging:** **D** = 13" machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel).

**B** = Less than full reel. In tape, but not machine ready.  
To have a leader and trailer added (\$25 charge), use code letter D instead.

2. Tested at 100 kHz, 0.1 Vrms, 0 Adc.
  3. Tolerances in bold are stocked for immediate shipment.
  4. SRF >13 MHz measured using Agilent/HP 8753D network analyzer; <13 MHz using Agilent/HP 4192A.
  5. DC current at which inductance drops 10% (typ) from its value without current.
  6. Average current for 40°C temperature rise from 25°C.
  7. Operating temperature range -40°C to +85°C.
  8. Electrical specifications at 25°C.
- See Qualification Standards section for environmental and test data.  
See Color Coding section for color dot part marking data.

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
Please check our website for latest information.

Document 179-1 Revised 03/23/06

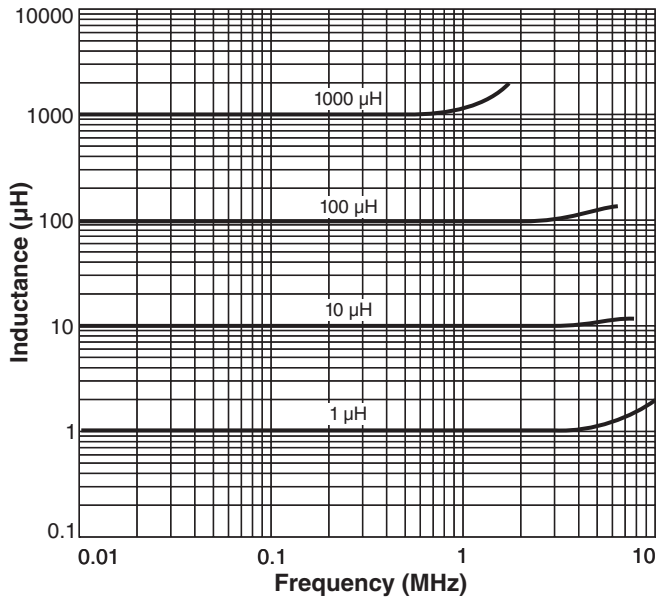
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

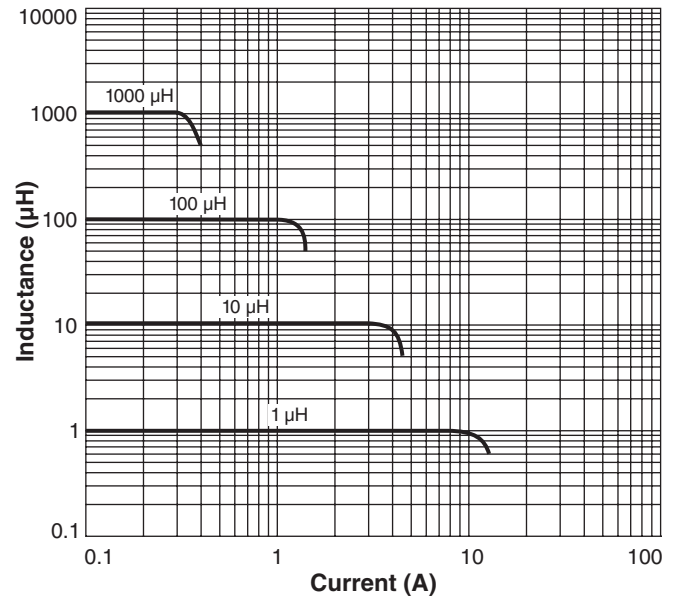


# SMT Power Inductors – DO3316P Series

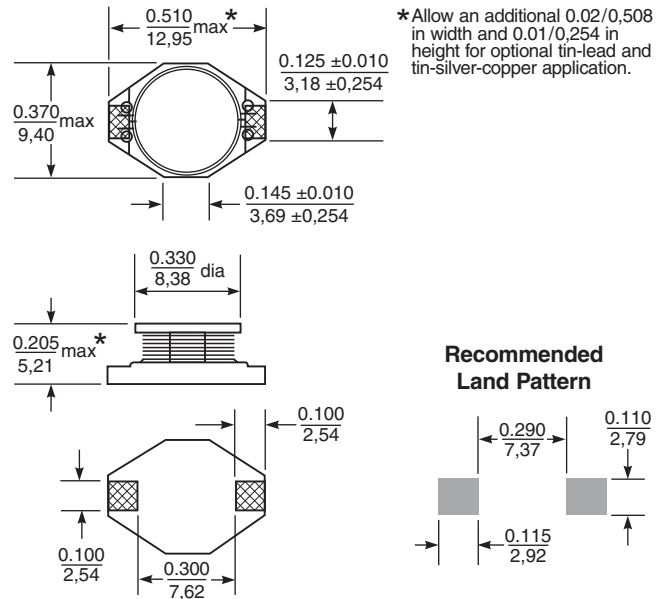
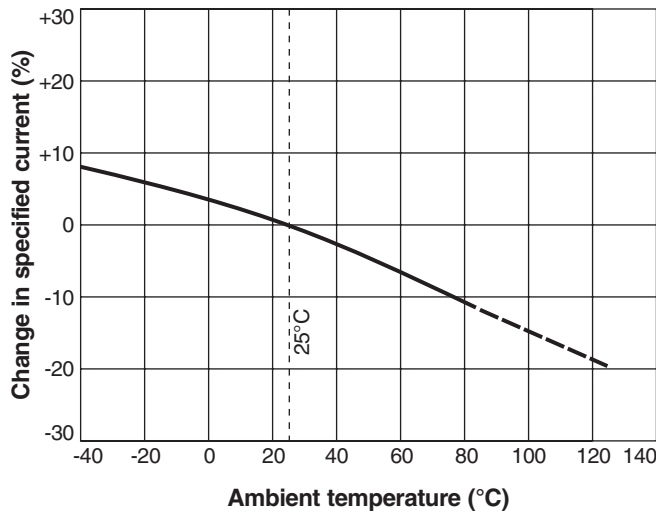
## Typical L vs Frequency



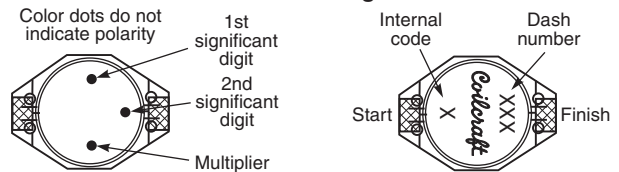
## Typical L vs Current



## Current Derating



### Part Marking



**Weight:** 0.92 – 1.23 g  
**Tape and reel:** 1000/13" reel 24 mm tape width  
 For packaging data see Tape and Reel Specifications section.



Specifications subject to change without notice.  
 Please check our website for latest information.

Document 179-2 Revised 08/25/06

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>